

## Aerial Detection Survey – Update, Aug 31<sup>st</sup>, 2012

**Background:** Annual aerial detection surveys for tree injury and mortality have been conducted in California since 1994. This is an update of survey status for the 2012 survey season for Aug 31<sup>st</sup>, 2012.

**Objective:** Detect and map tree mortality and damage in California / USFS Region 5, and detect tanoak mortality in northern Humboldt County.

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**Dates:** August 30 and 31<sup>st</sup>, 2012.

**Methodology:** Recently dead or injured trees (trees still retaining dead foliage) were mapped visually by surveyors using digital aerial sketch-mapping systems flying in a light fixed-wing aircraft approximately 1,000 feet above ground level. Surveyors record the number and species of affected trees and type of damage (mortality, defoliation, branch flagging) at each mapped location.

### Details:

- 991 miles were flown, covering 2.0 million acres. Privately-owned forest lands in Humboldt, Mendocino, Lake, Napa and Yolo Counties, as well as some of the Mendocino National Forest was surveyed. See Figure 1.
- The Redwood Creek area of northern Humboldt County was flown specifically to map tanoak mortality to target for ground checks for sudden oak death (SOD). About 50 dead tanoak were mapped outside the SOD treatment area in Redwood Creek. Figure 2.
- The north-east extent of the SOD infestation in southern Humboldt was also surveyed. A 20-acre area of tanoak mortality in the Van Duzen River watershed was observed near Grizzly Creek, a watershed that has tested positive for *P. ramorum*. No tanoak mortality was seen in the Grizzly Creek watershed.
- Ponderosa and knobcone pine mortality was observed throughout the south-western portion of the Mendocino National Forest.
- Discoloration of hardwoods was observed throughout the survey area.

Figure 1. Flown area and mapped tree mortality

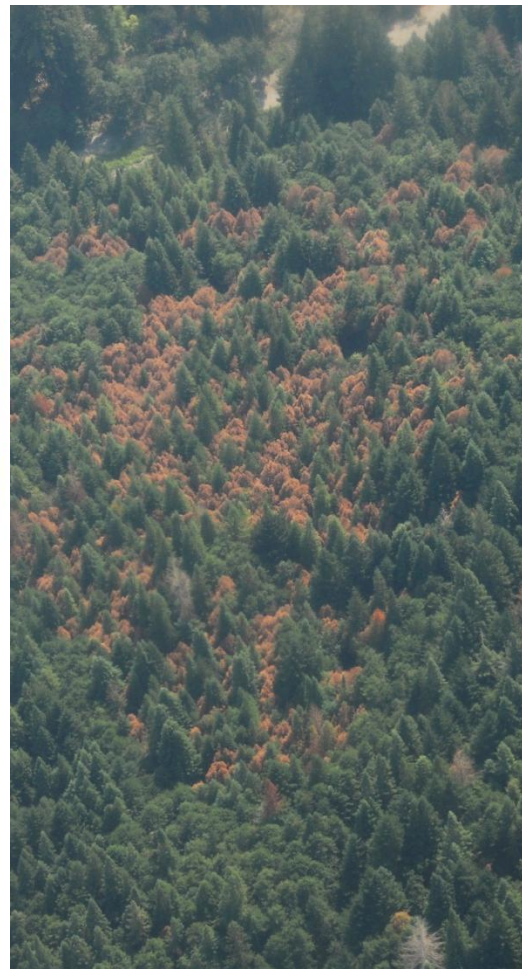
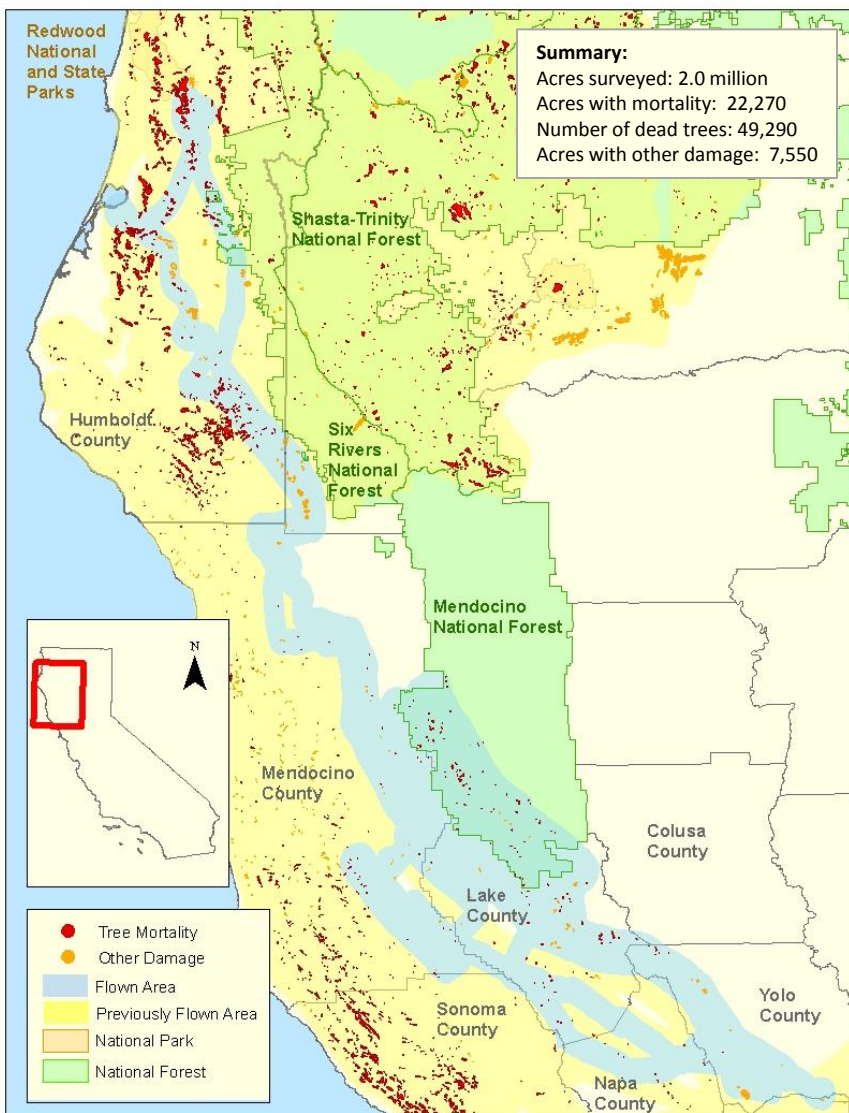


Figure 2. Herbicide treatment of tanoak in the Redwood Creek watershed.

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